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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,212	01/15/2002	Toshihisa Shimo	5000-4985	4401

7590 04/01/2004  
MORGAN & FINNEGAN, L.L.P.  
345 Park Avenue  
New York, NY 10154

EXAMINER	
WYROZEBSKI LEE, KATARZYNA I	
ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/053,212

Applicant(s)

SHIMO ET AL.

Examiner

Katarzyna Wyrozebski Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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In view of applicant's response to the office action dated 10/19/2003 following final office action has been necessitated. The prior art disclosure of TWARDOWSKA is hereby overcome by filing certified translation of the Japanese priority document. The prior art disclosure of NINOMIYA is overcome by applicant's convincing arguments.

***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 3, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by SYMONS (US 5,309,690).

The discussion of the disclosure of the prior art of SYMONS from paragraph 5 of the office action dated 10/29/2003 is incorporated here by reference.

*Claim Rejections - 35 USC § 103*

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3, 5-7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JUENGER (US 3,830,894).

The discussion of the disclosure of the prior art of JUENGER from paragraph 10 of the office action dated 10/29/2003 is incorporated here by reference.

5. Claims 4, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JUENGER (US 3,830,894) as applied to claims 1-3, 5-7, 9 above, and further in view of ROSS (US 6,610,770).

The discussion of the disclosure of the prior art of JUENGER and ROSS from paragraph 11 of the office action dated 10/29/2003 is incorporated here by reference.

In the response to the first office action, the applicants have argued following:

a) Applicant's arguments with respect to disclosures of TWARDOWSKA and NINOMIYA are considered moot due to discontinuation of these disclosures against present claims.

b) The prior art of SYMONS does not disclosed organized clay mineral.

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With respect to the above argument the examiner disagree. The prior art of SYMONS in col. 5, lines 15-18 clearly teaches expanded clay materials such as vermiculite or perlite. The mere fact that these components are expanded means that they are organized into such structure by outside forces. They may include ammonium compounds, monomers or various solvents. However, since claim 1 is silent with respect to more specific type of the organized clay the prior art of SYMONS is still applicable.

When the applicants state that the clay of the present invention is organized by use of ammonium compounds, wherein ammonium compounds will by virtue intercalate and expand the basal spacing of the clay component, such limitation is part of claim 4, which claim is not rejected by SYMONS. Incorporating such limitation into claim 1 would overcome 102 rejection over the prior art of SYMONS. By incorporating limitations of claim 4 the examiner refers to limitation of intercalation by onium cation. The examiner also noticed that term sodio-montmorillonite should be spelled sodium-montmorillonite.

c) The prior art of JUENGER does not teach filler dispersed in a binder, but skeleton like mass of particulate filler where the binder is dispersed in between the filler.

With respect to the above argument, when talking about foams they can be viewed in two ways. One, which is described by the applicants, and the other that is the very first sentence in the prior art of JUENGER, which stated that the prior art discloses filled phenol resin foam material. This means that the materials of JUENGER are foamed and are filled with fillers. The later one is the view of the examiner. The present invention does not exclude foams.

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d) There is no teaching or suggestion to modify the disclosure of JUENGER with the clay of ROSS.

With respect to the above argument the examiner disagrees for two reasons. One is that "the finding obviousness does not require existence of express, written motivation to combine in prior art" 69 USPQ2D 1686 Ruiz v. A.B. Chance Co. The second is that prior art of JUENGER discloses exfoliated clay and swellable mica. The prior art of ROSS discloses how to obtain the exfoliated clay and swelled mica by a method that is otherwise very well known in the art.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

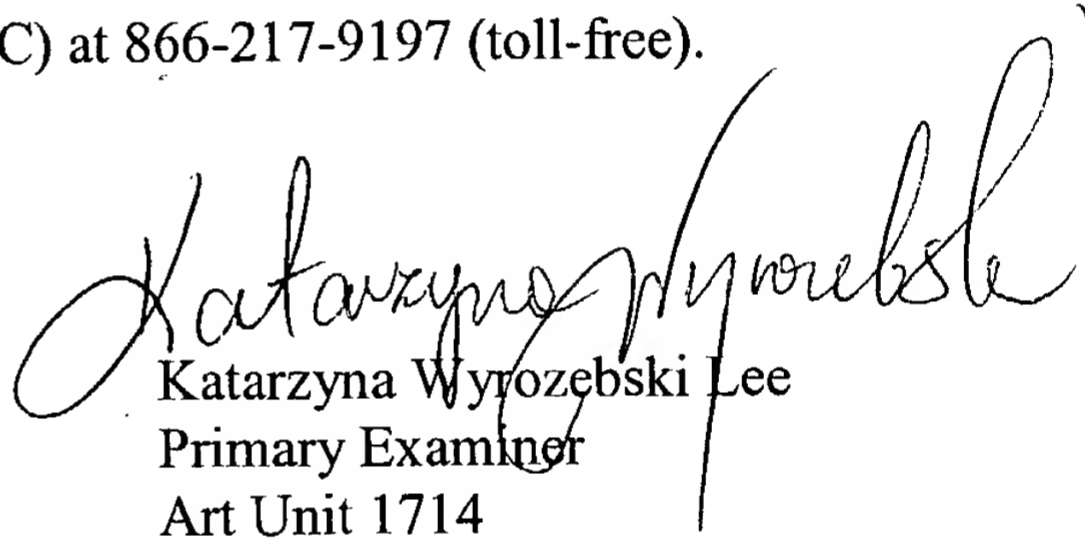
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Katarzyna Wyrozebski Lee  
Primary Examiner  
Art Unit 1714

kiwl  
March 30, 2004